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IRO CASE #:
DESCRIPTION OF THE SERVICE OR SERVICES IN DISPUTE:
Outpatient surgery with left open biceps tenodesis and open rotator cuff repair

A DESCRIPTION OF THE QUALIFICATIONS FOR EACH PHYSICIAN OR OTHER HEALTH CARE PROVIDER WHO REVIEWED THE DECISION:
Orthopedic Physician

REVIEW OUTCOME:
Upon independent review, the reviewer finds that the previous adverse determination/adverse determinations should be:

☒ Upheld (Agree)

Provide a description of the review outcome that clearly states whether medical necessity exists for each of the health care services in dispute.

PATIENT CLINICAL HISTORY [SUMMARY]:
The patient is a male who was injured on XX/XX/XX. When replacing a pump on a truck, he reached behind the motor and felt pain in the left shoulder.

On XX/XX/XX, the patient underwent magnetic resonance imaging (MRI) of the left shoulder. The MRI revealed evidence of previous surgery with superior migration of the humerus on the glenoid. There was marked thinning of the supraspinatus as well as inferior spinatus tendons and full-thickness tears demonstrated through the supraspinatus and infraspinatus tendons without retraction. There was moderate atrophy noted. There was a small joint effusion. Fluid in the subacromial space could reflect fluid leaking through the supraspinatus as well as infraspinatus tendon tears or subacromial bursitis. The glenoid labrum might be better evaluated by intraarticular gadolinium needed; the labrum appeared to have relatively diffuse chronic arthritic degenerative pattern.

On XX/XX/XX, an MRI of the cervical spine showed multilevel disc bulging. The most significant herniation was at C6-C7 and was coincidentally more prominent to the left. There was mild stenosis at C4-C5 and C6-C7.

The same day, evaluated the patient for MRI follow-up. Physical exam showed active elevation approximately 90 degrees on the left with full elevation on the right. His deep tendon reflexes (DTRs) were hyperactive but symmetrical regarding biceps, triceps, and brachioradialis and wrist extensors. The patient was scheduled for an epidural steroid injection (ESI).

performed a cervical ESI on the patient on XX/XX/XX. The postoperative diagnosis was disc disease at C4-C5, C5-C6, and C6-C7 with left-sided cervical radiculopathy from C6-C7.

On XX/XX/XX, the patient reported the previous epidural injection at the cervical spine offered relief to the trapezial distribution of his pain. He continued to have the paresthesia radiating to the arm. Physical exam was unchanged. Recommendation was referral to neurosurgeon.

On XX/XX/XX, the patient was seen. The patient had history of chronic left shoulder pain secondary to expected failed rotator cuff repair and possibly secondary to cervical disc disease. On examination, he still had significant limitations in all planes. His passive range of motion (ROM) was better than his active ROM and when the arm was placed in increased degrees of elevation, the patient could successfully maintain that posture. There were limitations of ROM of the cervical spine at lateral rotation to the right and left as well as flexion and extension. Recommendation was neurosurgical opinion.

examined the patient on XX/XX/XX. The patient reported he had two surgeries and after each surgery, he did not improve. The patient was on working restrictions of lifting no more than 30 pounds and rarely overhead lifting and no pushing, pulling or climbing. The patient reported shoulder pain lateral to acromion and from right to the left side of his neck. Pain scale was 5/10 but sometimes 8/10. He also reported intermittent numbness in his left thumb and little finger. Physical exam showed tenderness to palpation of the scalp on the left. There was pain to axial compression to the right side of the mid cervical spine over the paraspinal muscles. There was tenderness to palpation at C5 to C7. ROM of the cervical was self-limited. The shoulder ROM was also decreased on the left side than the right. The acromioclavicular (AC) joint on the left, clavicle appeared slightly elevated, which suggested grade I AC joint subluxation. Biceps reflexes were +2 and symmetrical. The diagnoses were status post left shoulder rotator cuff repair x 2 with poor outcome; persistent full-thickness tear of the supra and infraspinatus tendons; obvious atrophy of the left supra and infraspinatus muscles was visualized over the shoulder girdle; cervical spine pain without objective signs of muscle spasms, radiculopathy or nerve root compression; diffuse cervical spondylosis per MRI and CT scan. left shoulder injury was an exacerbation of the patient's previous unsuccessful rotator cuff repairs because he continued performing the same type of work he was before injury. The disability and work restrictions remained unchanged. Further treatment other than a home exercise program (HEP) everyday using pulleys, Thera bands, and wall finger climbing was not medically necessary or reasonable as it related to the index injury. Over-the-counter medications and thermal compresses would be appropriate for pain control. Further diagnostic study was not medically necessary after XX/XX/XX. Additionally, significant atrophy of the supraspinatus and infraspinatus and anterior deltoid was obvious on this examination indicating the rotator cuff tears had been present for a significant period within reasonable medical probability

prior to XX/XX/XX.

On XX/XX/XX, the patient underwent a PT evaluation. PT recommendation was therapeutic exercises three times per week for four weeks.

The patient was seen for left shoulder pain. The patient had increased pain in the left arm and shoulder. He pointed pain to the deltoid region and around his scapula. Neck exam demonstrated limited ROM. Left shoulder exam showed pain and weakness with external rotation against resistance and with forward flexion against resistance. He had a positive empty-can sign. Tenderness was noted along AC joint and along the medical epicondyle. X-rays of the left shoulder showed a type 1 acromion. He would have superior migration of the humeral head. There was no evidence of fracture. The diagnosis was left shoulder pain with history of failed rotator cuff repair. recommended an MRI of the left shoulder.

On XX/XX/XX, an IRO was documented for medical necessity of a repeat MRI left shoulder. The review upheld the previous denial noting there was no need to repeat the MRI as it did not met the ODG guidelines.

saw the patient on XX/XX/XX. The patient continued feeling uncomfortable over the last 6 to 8 months. He was using Tylenol and ibuprofen. With active ROM of his shoulder, he got pain and discomfort. He also had pain with abduction and external rotation. He had a positive impingement sign. He only had 60 degrees of abduction of forward elevation. recommended an MRI of the shoulder.

On XX/XX/XX, an MRI of the left shoulder demonstrated: 1. Evidence of prior rotator cuff repair with multiple anchors in the humeral head and extensive cortical irregularity along the footplate of the humeral head, there was marked attenuation of the supraspinatus and infraspinatus tendons, with only a thin tendon fibers traversing the acromiohumeral interval, the majority of fibers were atrophic and favored to be retracted to the level of the glenoid, image 8 of series 7; severe supraspinatus and moderate infraspinatus fatty muscle atrophy noted on image 14 of series 4. Tearing allowed proximal migration of the humeral head 2. Biceps hypertrophic intra-articular tendinopathy, posterior labral degeneration, small joint effusion. 3. Mild edema and fluid in the region of the subacromial/subdeltoid bursa.

On XX/XX/XX, evaluated the patient. MRI of the left shoulder showed full thickness tear of his rotator cuff with supraspinatus and infraspinatus involvement with significant atrophy of the muscles fiber mass. There appeared to be hypertrophy of the intra-articular portion of his biceps. There was mild edema and fluid in the region of the subacromial/subdeltoid bursa. Exam revealed limited abduction and forward elevation to 70-80 degrees. opined the rotator cuff tear was chronic and there was no need to repair it. There was some clinical basic for arthroscopic examination for biceps tendon tenodesis. The patient would be candidate for a reverse total shoulder arthroplasty and activity restrictions.

On XX/XX/XX, saw the patient for follow up for his left shoulder secondary to a re-tear of his rotator cuff. There was a change in his active abduction and forward flexion. Examination showed that the patient was able to do only 30 degrees of active abduction and forward elevation. The patient was considered a potential candidate for diagnostic arthroscopic examination of the shoulder for re-inspection of the rotator cuff as well as biceps tendon tenotomy as a palliative procedure.

On XX/XX/XX, evaluated the patient. Physical exam of the right upper extremity demonstrated active ROM of 180 degrees forward elevation, 90 degrees abduction, 90 degrees abduction/external rotation, 70 degrees side external rotation and internal rotation up to level of T8. There was a positive subacromial crepitus. Left upper extremity demonstrated an active ROM 50 degrees forward elevation with discomfort, 55 degrees abduction, 50 degrees side external rotation and internal rotation up to the level of T10. There was positive moderate subacromial crepitus, equivocal Neer, positive Hawkins, and positive Jobe's with pain and weakness and positive mild drop arm. There was mild tenderness to palpation, significant supraspinatus tenderness to palpation and moderate subscapularis/biceps tenderness to palpation. X-rays showed glenohumeral joint with a little bit of superior migration. There were some changes on the grater tuberosity. There was a little bit of calcification posteriorly in the ligament. The assessment was left shoulder dominant arm chronic supraspinatus tear currently irreparable, some infraspinatus tearing that had some tendon remnant and muscle belly that was still in place that could be repaired, some biceps tendinitis and rotator cuff arthropathy. Recommendation was deltoid retraining program.

On XX/XX/XX, the patient underwent initial evaluation of physical therapy (PT). The patient completed electrical stimulation, joint mobilization, therapeutic exercises, neuromuscular re-education, and physical performance test.

From XX/XX/XX, through XX/XX/XX, the patient underwent 10 PT visits. The modalities included electrical stimulation, joint mobilization, therapeutic exercises and neuromuscular re-education.

On XX/XX/XX, reevaluated the patient for follow up. Physical exam showed his forward elevation was about 90 degrees which was previously only 50 degrees. There was some scapular tenderness noted. The assessment was left shoulder chronic supraspinatus tear, repairable, biceps tendinitis and rotator cuff arthropathy. recommended deltoid retraining program.

From XX/XX/XX through XX/XX/XX, the patient completed two PT visits. The patient was making steady progress toward established goals.

On XX/XX/XX, the patient was seen. The patient reported his ROM had improved. He was a little better but still had pain. He reported pain scale was 7/10. His shoulder was more functional. Physical exam showed active forward elevation was 130 degrees, abduction was 80 degrees. External rotation was actively 45 degrees, internal rotation was to T8. He had some pain with some capsular stretch. He had pain with biceps tendon testing. There was tenderness over the biceps tendon and anterior aspect of his shoulder. MRI was reviewed which showed multiple anchors from attempted repair. There were some cystic changes associated with those anchors. The

assessment was left shoulder chronic rotator cuff tear, irreparable without augmentation. Biceps tendinitis and the beginnings of rotator cuff arthropathy. recommended a reverse total shoulder and rotator cuff repair.

In a prospective/concurrent review determination, denied the request for outpatient surgery for left open biceps tenodesis, open rotator cuff repair to include CPT codes 23430 and 23412. Rationale: *"The guidelines indicate that while revision rotator cuff repair surgery was inferior to primary repair, pain relief may be achieved in most individuals; however, selection criteria should include individuals with intact deltoid origin and good quality rotator cuff tissue with preoperative elevation above the horizontal and only one prior procedure. The records support that the claimant had had prior surgeries. However, there was no objective documentation of significant good quality retaining rotator cuff tendon, to support the medically necessity of the revision repair requested at this time, per the guidelines recommendations. The request for outpatient surgery with left open biceps tenodesis and open rotator cuff repair was not certified."*

denied a reconsideration request on XX/XX/XX. The determination denied outpatient surgery left open biceps tenodesis, open rotator cuff repair to include CPT codes 23430 and 23412. Rationale: *"The request was previously noncertified on XX/XX/XX, as the claimant has had prior surgeries without objective documentation of good quality retained rotator cuff tendon to support the requested revision. No additional documentation is submitted. The request remains noncertified. The Guidelines would support revision rotator cuff surgery in individuals who have been selected with criteria of intact deltoid origin, good-quality rotator cuff tissue, preoperative elevation above the horizontal, and only one prior procedure. The claimant has had prior surgeries of greater than one in nature with objective documentation of rotator cuff atrophy and inadequate documentation of good quality retained rotator cuff, to support the medically necessity for the requested revision. The reconsideration of a previously noncertified request for outpatient surgery with left open biceps tenodesis and open rotator cuff repair is not certified."*

ANALYSIS AND EXPLANATION OF THE DECISION INCLUDE CLINICAL BASIS, FINDINGS, AND CONCLUSIONS USED TO SUPPORT THE DECISION:

Based on the records reviewed, it would appear that the claimant is status post failed rotator cuff repair of the left shoulder times two with humeral head elevation and retraction of the rotator cuff to the level of the glenoid with fatty atrophy. Given the above, I would not find the claimant to be a candidate for open rotator cuff repair or bicipital tenodesis. Thus, I would uphold the denial for surgical intervention. This is consistent with evidence-based medicine such as Official Disability Guidelines and my own training and experience as a board-certified orthopedic surgeon. There is no valid rotator cuff musculature or tendon to repair based on MRI and records reviewed in this case.

Should further records, diagnostics, or peer review clarifying these issues become available, I will be happy to take these into consideration.

A DESCRIPTION AND THE SOURCE OF THE SCREENING CRITERIA OR OTHER CLINICAL

BASIS USED TO MAKE THE DECISION:

☒ **ODG- OFFICIAL DISABILITY GUIDELINES & TREATMENT GUIDELINES**

Official Disability Guidelines (20th annual edition), 2015
Shoulder (updated 10/26/15)
Surgery for Biceps Tenodesis
Recommended as an option for Type II or Type IV SLAP lesions in patients over 40 years of age. See SLAP lesion diagnosis. Biceps tenodesis (suture of the end of the tendon to the bone) is a surgical procedure usually performed for the treatment of refractory biceps tendonitis of the shoulder. A biceps tenodesis may be performed as an isolated procedure, or part of a larger shoulder surgery such as a rotator cuff repair. Patients with biceps tendon problems may have a detachment of the biceps tendon from the socket of the shoulder (a SLAP tear), or they may have inflammation and irritation of the biceps tendon itself. A biceps tenodesis is usually performed in patients over the age of 40, whereas other procedures such as a SLAP repair may be attempted in younger patients. Individuals older than 35 years with an isolated type II SLAP lesion had a shorter postoperative recovery, a more predictable functional outcome, and a higher rate of satisfaction and return to activity with biceps tenodesis compared with a biceps repair. Based on these observations, biceps tenodesis is preferable to biceps repair for isolated type II SLAP lesions in non-overhead athletes older than 35 years. (Denard, 2014) Surgical repair remains the gold standard for most type II and type IV SLAP lesions that fail nonoperative management. However, more recently reported data has demonstrated unacceptably high failure rates with primary repair of type II SLAP lesions. Biceps tenodesis may offer an acceptable, if not better, alternative to primary repair of SLAP lesions. This study adds to the evolving literature supporting biceps tenodesis as a viable treatment for type II and IV SLAP lesions. (Gottschalk, 2014) Successful arthroscopic repair of symptomatic superior labral tears in young athletes has been well documented. Superior labral repair in patients older than 40 years is controversial, with concerns for residual postoperative pain, stiffness, and higher rates of revision surgery. While studies show that good outcomes can be obtained with SLAP repair in an older cohort of patients, age over 40 and workers' compensation status are independent risk factors for increased surgical complications. The cumulative evidence supports labral debridement or biceps tenotomy over labral repair when an associated rotator cuff injury is present. (Erickson, 2014) Biceps tenodesis is a viable treatment option for SLAP repair. (Huri, 2014) Practice trends indicate that the proportion of SLAP repairs has decreased over time, with an increase in biceps tenodesis and tenotomy. Increased patient age correlates with the likelihood of treatment with biceps tenodesis or tenotomy versus SLAP repair. For patients with isolated SLAP lesions, the proportion of SLAP repairs decreased from 69.3% to 44.8%, while biceps tenodesis increased from 1.9% to 18.8%, and biceps tenotomy increased from 0.4% to 1.7%. For patients undergoing concomitant rotator cuff repair, SLAP repair decreased from 60.2% to 15.3%, while biceps tenodesis or tenotomy increased from 6.0% to 28.0%. There was a significant difference in the mean age of patients undergoing SLAP repair (37.1 years) versus biceps tenodesis (47.2 years) versus biceps tenotomy (55.7 years). (Patterson, 2014) See also Surgery for SLAP lesions.

Criteria for Surgery for Biceps tenodesis:
- History and physical examinations and imaging indicate significant biceps tendon pathology
- After 3 months of failed conservative treatment (NSAIDs, injection and PT)
- Advanced biceps tendinopathy
- Type II SLAP lesions (fraying and some detachment)
- Type IV SLAP lesions (more than 50% of the tendon is involved, vertical tear, bucket-handle tear of the superior labrum, which extends into biceps, intrasubstance tear)
- Generally, type I and type III SLAP lesions do not need any treatment
- Also patients undergoing concomitant rotator cuff repair
- Age 40 and older
- Below age 40 if undergoing concomitant rotator cuff repair

Surgery for Rotator Cuff Repair
Recommended as indicated below.
Revision rotator cuff repair: The results of revision rotator cuff repair are inferior to those of primary repair. While pain relief may be achieved in most patients, selection criteria should include patients with an intact deltoid origin, good-quality rotator cuff tissue, preoperative elevation above the horizontal, and only one prior procedure. (Djurasovic, 2001)
ODG Indications for Surgery™ -- Rotator cuff repair:
Criteria for rotator cuff repair with diagnosis of full thickness rotator cuff tear AND Cervical pathology and frozen shoulder syndrome have been ruled out:
1. Subjective Clinical Findings: Shoulder pain and inability to elevate the arm; tenderness over the greater tuberosity is common in acute cases. PLUS
2. Objective Clinical Findings: Patient may have weakness with abduction testing. May also demonstrate atrophy of shoulder musculature. Usually has full passive range of motion. PLUS
3. Imaging Clinical Findings: Conventional x-rays, AP, and true lateral or axillary views. AND MRI, ultrasound, or arthrogram shows positive evidence of deficit in rotator cuff.
Criteria for rotator cuff repair OR anterior acromioplasty with diagnosis of partial thickness rotator cuff repair OR acromial impingement syndrome (80% of these patients will get better without surgery.)
1. Conservative Care: Recommend 3 to 6 months: Three months is adequate if treatment has been continuous, six months if treatment has been intermittent. Treatment must be directed toward gaining full ROM, which requires both stretching and strengthening to balance the musculature. PLUS
2. Subjective Clinical Findings: Pain with active arc motion 90 to 130 degrees. AND Pain at night (Tenderness over the greater tuberosity is common in acute cases.) PLUS
3. Objective Clinical Findings: Weak or absent abduction; may also demonstrate atrophy. AND Tenderness over rotator cuff or anterior acromial area. AND Positive impingement sign and temporary relief of pain with anesthetic injection (diagnostic injection test). PLUS
4. Imaging Clinical Findings: Conventional x-rays, AP, and true lateral or axillary view. AND MRI, ultrasound, or arthrogram shows positive evidence of deficit in rotator cuff.
(Washington, 2002)
For average hospital LOS if criteria are met, see Hospital length of stay (LOS).